

REMARKS

Claims 1-47 are pending in the application. Claims 17-20 and 36 are withdrawn from further consideration by the Examiner pursuant to a restriction requirement under 35 U.S.C. §121. Responsive to the Office Action dated 21 March 2007, applicants have amended the independent claims 1, 22, 37 and 42, and dependent claims 38 and 39 (shown in the Listing of Claims attached hereto) in order to more particularly and completely claim the present invention. No new matter has been introduced. Applicants respectfully request reconsideration of the application in view of the foregoing amendment and following remarks.

Substance of Telephonic Interview on 20 August 2007

Applicants provide a statement of the substance of the telephonic interview with the Examiner on August 20, 2007 as follows:

Applicants' undersigned attorney thanks the Examiner for the courtesies extended during the telephone interview on August 20, 2007. No exhibits were shown or any demonstrations conducted. The independent claims were discussed, and claim language was proposed to clarify the differences of the present invention over the Arian et al. and Meehan references.

The principal arguments presented to the Examiner are presented in detail below.

Claim Rejections – 35 U.S.C. §103(a)

Claims 1-16, 21-35, and 37-47 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Arian et al. (US 6,564,899) in view of Hoyle et al. (US 5,036,945), Meehan (US Pub. No. 2002/0080682) and Chung et al. (US Re.33,837). Reconsideration is requested.

Claim 1 has been amended to specify:

“an outer sleeve configured to isolate receiving elements and electronics of the acoustic receiver section from borehole environments.”

Similar claim language has been added to the other independent claims. Support for the claim amendments may be found on page 11, paragraph 48, of the present specification.

The prior art of record does not disclose or suggest the combinations of features in independent claims 1, 22, 37, and 42.

In the Office Action, the Examiner appears to have rejected independent claims 1 and 22 for the following reasons:

(1) Meehan teaches alternating zones of high and low impedance bands wherein the first and third hollow metallic cylinders each comprise an acoustic impedance between twice and at least ten times as high as the second and fourth hollow cylinders when in combination. See last sentence on page 4 carrying over to page 5 of the Office Action.

(2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the first and third hollow metallic cylinders each with an acoustic impedance between twice and at least ten times as high as the second and fourth hollow cylinders on the grounds that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. See second sentence on page 5.

However, the Examiner has not shown where there is motivation to combine Meehan with the other cited references, especially Arian. Moreover, the Examiner has not shown where Meehan discloses or suggests providing differences in acoustic impedance that range from a factor of two to a factor of ten, as claimed in the instant claims.

Moreover, the Examiner fails to note that Arian in fact teaches away from the instant claim features, viz., acoustic impedance differs by “at least a factor of two” (in claim 1) and is “at least twice as high as the second zone” (in claim 22). In this, Arian teaches that the acoustic impedance of the absorbing rings should be closer in value to the acoustic impedance of the tool body so that transfer of acoustic energy from the tool body to the acoustic absorbing rings can be enhanced. See col. 9, lines 28-33. In other words, Arian teaches away from the instant claimed invention, which is directed to differing acoustic impedance between zones.

In contrast, Meehan has a generalized teaching of sections having different impedance (see page 3, paragraph 48), but does not provide any teaching as to the specific differences in impedance. Therefore, the combination of Arian and Meehan proposed by the Examiner is untenable.

The Examiner appears to have rejected independent claim 42 on the grounds that “rearranging parts of an invention involves only routine skill in the art.” Office Action at page 3. It appears that the Examiner considers Arian as disclosing acoustic impedance zones that cover a plurality of spaced receiver blocks and acoustic receivers, as specified in instant claim 42. As mentioned above, similar claim language has been added to the other independent claims.

Arian does not teach acoustic impedance zones that cover receiver blocks and acoustic receivers to isolate them from borehole environments. It is noted that in Arian, the receivers are exposed to pressure in the borehole. See Arian at col. 13, lines 14-15.

The mere fact that a person skilled in the art could rearrange the parts of a reference device to meet the terms of the claim is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of the instant specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

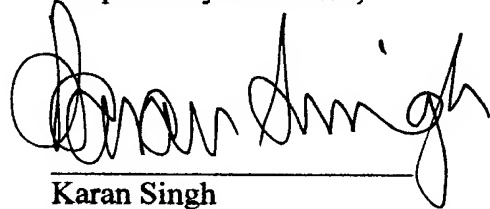
For the reasons discussed above, independent claims 1, 22, 37 and 42 should be allowable. Claims 2-21, 23-36, 38-41, and 43-47, which depend from corresponding independent claims, should be allowable for at least the same reasons.

Conclusion

In light of the above amendments and remarks, applicants believe that the present application and claims 1-47 are in proper condition for allowance. Such allowance is earnestly requested.

In the event that any additional fees or credits are due owing to this response, the Commissioner is hereby authorized to charge the amount necessary to cover any fee that may be due or to credit any overpayment to Deposit Account 50-1122.

Respectfully submitted,



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